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AND

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Boston.

OUTLINE COURSE OF STUDY.—PRIMARY.

VI. CLASS.

Language.—Oral lessons. Purpose—to accustom pupils to express what they know in sentences. Material—reading lessons, pictures, plants, and animals, or whatever the ingenuity of the teacher may suggest. 1½.

Oral Instruction.—Simple, conversational studies of familiar plants, animals and things;—to distinguish form, color and prominent qualities. Simple poetry recited (throughout the course.) 2½.

Reading and Spelling.—Reading from blackboard, chart and a Reader of a proper grade. 10.

Writing.—A few of the simplest script letters, viz: i, u, n, m, t, d, e, o, etc. Short, easy words, names of familiar objects, combining the letters learned. Arabic figures. 1½.

Arithmetic.—Numbers from 1 to 10. 1. Adding and subtracting. 2. Arabic figures. 3. Ordinal numbers. 2.

Drawing.—As in Rules and Regulations, Chap. XXVIII. Names, positions and relationship of straight lines. Combinations of lines to make figures. Their division into equal parts. Drawing from memory and dictation of lines in defined positions. Combinations and arrangements of points and short lines in geometric forms. Ruling lines of given length. Measuring length of given lines. Black-board. Slates. 2.

Music.—First 14 pages of First Nat. Music Reader by rote. Scales by numerals and syllables. Position of body and formation of sounds. 1.

Physical Exercises.—Not less than twice each session, some simple, pleasing exercise in concert. 50 Min.

Recreation.—½.

V. CLASS.

Language.—Same as in Class VI. 1½.

Oral Instruction.—Same as in Class VI., with new material. Simple talks about the human body and hygiene. In connection with number lessons; coins from 1 to 10 cents. 2½.

Reading and Spelling.—Reading from a Reader of a proper grade. Spelling, by sound and by letter, some easy, common words from the reading lessons. 10.

Writing.—All the small script letters; combined into words as in Class VI. Arabic figures. 1½.

Arithmetic.—Numbers from 1 to 10. 1. Multiplying and dividing, with results in figures. 2. Relations of numbers from 1 to 10. 2.

Drawing.—Curved lines explained. The simple curve. Combination of curved with straight lines. Illustrate plane geometric definitions of lines and figures, by rule and measure. Simple forms from memory and dictation. Re-arrangements of exercises in design. Black-board. Slates. 2.

Music.—Notation. Time, beating time and signs of expression. Practice in writing characters used in music. Rote songs at option of teacher. 1.

Physical Exercises.—Same as in Class VI. 50 m.

Recreation.—½.

IV. CLASS.

Language.—Same as in preceding classes. 2.

Oral Instruction.—Same as before, introducing freely comparisons between like and unlike; and studying less familiar plants, animals and things. With number lessons; pint, quart, gallon, quart, peck, bushel. 2½.

Reading and Spelling.—Reading from a Reader of a proper grade. Supplementary reading. Spelling, by sound and by letter, words from the reading lessons, and other

familiar words. 8. 1

Writing.—Capitals and small letters; short, easy words; names of pleasing, familiar objects; pupil's name. 2.

Arithmetic.—Numbers from 1 to 20. 1. Combinations of 10 with numbers smaller than 10. 2. Adding, subtracting, multiplying and dividing, with results in figures. 3. Relations of numbers from 1 to 20. 4. Roman numerals to XX. 5. Meter and decimeter. 2½.

Drawing.—Curved lines explained. The compound curve. Outlines of vases and pitchers, illustrating compound curves. Arranging simple leaves to fill geometric forms by repetition. Symmetry or balance of parts explained. Definitions of regular plane forms in words and by illustrations. Dictation and memory. Blackboard. Slates. 2.

Music.—Review and advance to end of Chart No. 12. Rote songs, pages 15, 16 and 17. Writing of notes of different values and combining them into measures. 1.

Physical Exercises.—Same as in Classes V. and VI. 50 m.

Recreation.—½.

Miscellaneous.—½.

III. CLASS.

Language.—Oral exercises as in preceding lessons. Pupils to write the sentences made in their oral exercises so far as they are able. 2.

Oral Instruction.—Same as before. Grouping of animals by habits, traits and structure; and of objects by form and qualities. Lessons in size and distance by simple measurements; inch, foot, yard. 2½.

Reading, Spelling.—Reading from a Reader of a proper grade. Supplementary reading. Spelling as before, written and oral. 8.

Writing.—Letters, words and short simple sentences; the proper use of capitals. Roman numerals. 2.

Arithmetic.—Numbers from 1 to 100. 1. Combinations of tens, and of tens with smaller numbers. 2. Adding, subtracting, multiplying and dividing numbers from 1 to 50, with results in figures. 3. Relations of numbers from 1 to 50. 4. Roman numerals to L. 5. Square and cubic decimeter. 2½.

Drawing.—Review work of previous classes. Proportion and size. Testing accuracy by scale. Designing new combinations of old forms. Symmetry and repetition further illustrated. Enlarging from cards. Reducing from blackboard. Blackboard and slates. 2.

Music.—Review, and advance to end of Chart No. 15. Exercise upon sounds of the scale by numerals, syllables and pitch names. Rote songs. Writing scale degrees under dictation. 1.

Physical Exercises.—Same as in preceding classes. 50 m.

Recreation.—½.

Miscellaneous.—½.

II. CLASS.

Language.—Same as in Class III. 2.

Oral Instruction.—Observation of less obvious qualities; tints and shades of color. Study of strange animals from pictures, to infer mode of life from structure, or structure from mode of life. Simple lessons on weights and divisions of time. Talks about the human body and hygiene, continued. Fables, anecdotes. 2½.

Reading, Spelling.—Reading from a Reader of a proper grade. Supplementary reading. Spelling as before. 7.

Writing.—Letters, words and sentences from dictation and from the blackboard. Sentences made in the language lessons to be used for writing exercises. 2.

Arithmetic.—Numbers from 1 to 100. 1. Adding, subtracting, multiplying and dividing, with results in figures.

2. Relations of numbers from 1 to 100. 3. Roman numerals to C. 4. Liter and dekaliter; dekameter. 3½.

Drawing.—Drawing on paper in books. Review work of Classes V. and VI. on paper. Even quality of lines. Subjects of lessons in previous classes repeated in regular order. 2.

Music.—Review and advance to end of No. 20. Scale practice by singing and writing. Rote songs. 1.

Physical Exercises.—Twice in the forenoon and once in the afternoon. 50 min.

Recreation.—½.

Miscellaneous.—½.

I. CLASS.

Language.—Same as in Classes II. and III. 2.

Oral Instruction.—Work of Class II. continued. Complementary colors. Harmonies of colors. Plants and animals gathered into families. Vegetable, animal and mineral products distinguished. Observation of the qualities and mechanism of things as adapted to their use. 2½.

Reading, Spelling.—Reading from a Reader of a proper grade. Supplementary reading. Spelling as before. 7.

Writing.—Words and sentences. Sentences used in language lessons will furnish material for exercises. The proper form of dating, addressing and signing a letter; also the correct method of superscribing an envelope. 2.

Arithmetic.—Numbers from 1 to 1,000. 1. Combinations of hundreds, and of hundreds with smaller numbers. 2. Adding, subtracting, multiplying and dividing numbers from 1 to 144, with results in figures. 3. Relations of numbers from 1 to 144. 4. Adding and subtracting, multiplying and dividing numbers from 144 to 1,000, no multiplier or divisor larger than 10 being used. 5. Roman numerals to M. 6. Centimeter; gram and kilogram. 3½.

Drawing.—Drawing on paper in books. Review work of Classes IV. and III. on paper. 2.

Music.—Charts from 21 to 36 inclusive. Rote songs. Writing of scales in different keys. 1.

Physical Exercises.—Same as in Class II. 50 m.

Recreation.—½.

Miscellaneous.—½.

Education as a Science.

By ALEXANDER BAIN, LL.D.

PROFESSOR IN THE UNIVERSITY OF ABERDEEN.

THE EMOTIONS IN EDUCATION.

With the emotion of exhilarating surprise at the discovery of likeness among things seemingly unlike, there is another grateful feeling, the relief from an intellectual burden. This appears at first sight a contradiction to what has been already said respecting the greater laboriousness of general knowledge; but the contrariety is only apparent. To contract an impression of one single individual, after plenty of time given to attend to it, is the easiest supposable mental effort. But such is the multiplicity of things, that we must learn to know and remember vast numbers of individuals; and we soon feel ourselves overpowered by the never-ending demands upon us. We must know many persons, many places, many houses, many natural objects; and our capability of memory is in danger of exhaustion before we have done. Now comes in, however, the discovery of identities, whereby the work is shortened. If a new individual is as exactly the same as the old, we are saved the labor of a new impression; if there is a slight difference, we have to learn that difference and no more. In actual experience, the case is that there are numerous agreements in the world, but accompanied with differences; and,

*The figure indicates hours per week occupied in lesson. Opening Exercises, ¼ hour a week. Recreations, 2½.

while we have the benefit of the agreements we must take notice of the differences. What makes a general notion difficult is that it represents a large number of objects that, while agreeing in some respects, differ in others. This difficulty is the price that we pay for an enormous saving in intellectual labor.

The overcoming of isolation in the multitude of particulars, by flashes of identity, is the progress of our knowledge in one direction; it is the satisfaction that we express when we say we understand or can account for a thing. Lightning was accounted for when it was identified with the electric spark; besides the exhilarating surprise at the sameness of two facts in their nature so different and remote, men had the further satisfaction of saying that they learned what lightning is. Thus by discoveries of identity we are enabled to explain the world, to assign the causes of things, to dissipate in part the mysteriousness that everywhere surrounds us.

When a discovery of identification is made among particulars hitherto looked upon as diverse, the interest created is all-sufficient to secure our appreciation. This is the alluring side of generalities. The repugnant aspect of them is seen in the technicalities that are invented to hold and express them—general or abstract designations, diagrams, and formulas. When it is proposed to indoctrinate the mind in these things, by themselves, and at a stage when the condensing and explaining power of the identities is as yet unawakened, the whole machinery seems an uncouth jargon. Hence the attempt to afford relief to the faculties by teaching the dry symbols of arithmetic and geometry, through the aid of examples in the concrete, and in all the abstract sciences to afford plenty of particulars to illustrate the generalities. This is good so far; but the real interest that overcomes the dryness arises only when we can apply the generalities in tracing identities, in solving difficulties, and in shortening labor; an effect that comes soonest to those who have already some familiarity with the field where the formulas are applicable. The liking for algebra and for geometry proceeds apace when one sees the marvels of curious problems solved, the likely properties discovered, among numbers and geometrical figures. A certain ease in holding in the memory the abstract symbols, after a moderate application, is enough to prepare us for a positive relish in the pursuit. Such is the case with generalities in all departments. If we can hold on till their bear they fruits in the explanation of things that we have already begun to take notice of, the pursuit is sustained by a genuine and proper scientific interest, whose real groundwork, however deeply hidden, is the stimulus of agreement among differing particulars, and the lightening of the intellectual labor in comprehending the world. These are the feelings that have to be awakened in the minds of pupils when groaning under the burden of abstractions.

The opposition of the concrete and the abstract, while but another way of expressing the opposition of the particular and the general, brings into greater prominence the highly composite or combined character of individuality. The individual thing is usually a compound of many qualities, each of which has to be abstracted in turn, in rising to general notions; any individual ball has, in addition to its round form, the properties called weight, hardness, color, and so on. Now, this composite nature, by charming several senses at once, gives a greater interest to individuals, and urges us to resist that process of decomposition, and separate attention, to which are given the designations "abstraction" and "analysis." It is for individuals in all their multiplicity of influence that we contract likings or affections; and, according as the charm of sense, and especially the color-sense, is strong in us, we are averse to the classing or generalizing operation. A fire is an object of strong individual interest; to rise from this to the general notion of the oxidation of carbon under all varieties of mode, including cases with no intrinsic charm, is to quit with reluctance an agreeable contemplation. The emotions now described—the pleasure of identity, and the lightening of labor—are of avail to counterwork this reluctance.

The second of the two motives that we have coupled together—the easing of intellectual labor—may be viewed in another light. When objects are viewed as operating agents in the economy of the world, as causes or instruments of change, they work by their qualities or powers in separation, and not by their entire individuality or concreteness. An iron bar, or a poker, is an individual concrete thing; but, when we come to use it, we put in action its various qualities separately. We may employ it as a weight, in which case its other properties are of no account; we use it as a lever, and bring into play simply its length and its tenac-

ity. We can put it in motion as a moving power, wherein its inertia is alone taken into account, with perhaps its form. In all these instances, the magnetical and the chemical and the medicinal properties of iron are unthought of. Now, this consideration opens up an important aid to the abstracting process, the analytic separation of properties, as opposed to the mind's fondness for clinging to concrete individuality. When we are working out practical ends, we must follow Nature's method of working; and, as that is by isolating the separate qualities, we must perform the act of mental isolation, which is to abstract, or consider, one power to the neglect of the rest. When we want to put forth heavy pressure, we think of various bodies solely as they can exert weight, in however many other ways they may invite or charm our sense. This is to generalize or to form a general notion of weight; and the motive to conceive it is practical need or necessity.

This motive of practical need at once brings us to the very core of causation, viewed as a merely speculative notion. The cause of anything is the agent that would bring that thing into being, suppose we were in want of it. The cause of warmth in a room is combustion properly arranged: we use this fact for practical purposes; and we may also use it for satisfying mere curiosity. We enter a warm room; we may desire to know how it has been made warm, and we are satisfied by being told that there has been, or is now somewhere, a fire in communication with it.

Thus it is that in proportion as we come to operate upon the world practically ourselves, and from that proceed to contemplate causation at large, we are driven upon the abstracting and analyzing process, so repugnant to one large portion of our feelings. Science finds an opening in our minds at this point, when otherwise we might need the proverbial surgical operation.

These observations will serve to illustrate the working of the emotion named Curiosity, which is justly held to be a great power in teaching. Curiosity expresses the emotions of knowledge viewed as desire; and more especially the desire to surmount an intellectual difficulty once felt. Genuine curiosity belongs to the stage of advanced and correct views of the world.

Much of the curiosity of children, and of others besides children, is a sham article. Frequently it is a mere display of egotism, the delight in giving trouble, in being pandered to and served. Questions are put, not from the desire of rational information, but for the love of excitement. Occasionally the inquisitiveness of a child provides an opportunity for imparting a piece of real information; but far oftener not. By ingeniously circumventing a scientific fact, one not too high for a child's comprehension, we may awaken curiosity and succeed in impressing the fact. Try a child to lift a heavy weight first by the direct pull, and then by a lever or set of pulleys, and probably you will excite some surprise and wonder, with a desire to know something further about the instrumentality. But one fatal defect of the childish mind is the ascendancy of the personal or anthropomorphic conception of cause. This, no doubt, is favorable to the theological explanation of the world, but wholly unsuited to physical science. A child, if it had any curiosity at all, would like to know what makes the grass grow, the rain fall, the wind howl, and generally all things that are occasional and exceptional; an indifference being contracted toward what is familiar, constant, and regular. When anything goes wrong, the child has the wish to set it right, and is anxious to know what will answer the purpose; this is the inlet of practice, and, by this, correct knowledge may find its way to the mind, provided the power of comprehension is sufficiently matured. Still the radical obstacle remains—the impossibility of approaching science at random, or taking it in any order; we must begin at the proper beginning, and we may not always contrive to tickle the curiosity at the exact stage of the pupil's understanding. Every teacher knows, or should know, the little arts of giving a touch of wonder and mystery to a fact before the explanation is given; all which is found to tell in the regular march of exposition, but would be lost labor in any other course.

The very young, those that we are working upon by gentle allurements, are not properly competent to learn the "how" or "wherefore" of an important natural fact; they cannot even be made to desire the thing in the proper way. They are open chiefly to the charm of sense novelty and variety, which, together with accidental charm or liking, impresses the pictorial or concrete aspects of the world, whether quiescent or changing, the last being the most powerful. They further are capable of understanding the more palpable conditions of many changes without pene-

trating to ultimate causes. They learn that to light a fire, there must be fuel and a light applied; that the growth of vegetables needs planting or sowing, together with rain and sunshine through a summer season. The empirical knowledge of the world that preceded science is still the knowledge that the child passes through in the way to science; and all this may be guided so as to prepare for the future scientific revelations. In other respects the so-called curiosity of children is chiefly valuable as yielding ludicrous situations for our comic literature.—*Popular Science Monthly*.

For the NEW YORK SCHOOL JOURNAL.

Good Teachers! Good Students.

(SUGGESTED BY AN EDITORIAL IN THE SCHOOL JOURNAL).

"It is a fact that good teachers are always studying."

Studying what? 1. How to make their work more efficient and satisfactory to themselves and their pupils. 2. Studying to know more of what the leading educators of the past and the present have said about the work of teaching; its importance, its nature, and its effects. Effects upon the children directly, and society as a grand result. 3. Studying the philosophy of child growth; its wants, its susceptibilities and how best to apply instruction to guide, direct and form a well disciplined mind, which will mould and lead the circle of society in which the pupil moves—in mature life. 4. Studying History, Biography, the Sciences, and Literature, so as to be always ready to apply a fit and apt illustration, to make clear an obscure point in teaching, as well as the result coming to oneself by this field of knowledge. 5. Studying the educational journals, that are furnished so cheap that every one who will may be benefited by the crisp thoughts of the best teachers the country affords, for the leading teachers do take and read all the educational journals they can possibly reach with their means. In fact a teacher may be very properly estimated by the number and character of educational journals he takes and reads; he alone can know what is going on in the great field of human effort around him. A teacher who is too poor to take an educational journal—or makes that an excuse—is no teacher, and should be debarred a certificate. He is not qualified to teach, and it is time school examiners are finding this out; teachers, the more you study, the more you can, and the better you can teach, and the more you read educational literature the more you will like it, and as a result of all this you will be better satisfied with your work, your pupils will have received more impulse to push onward and upward; you will secure better schools and better salaries, which you know is very agreeable to us all, and this the only road to permanent success. There is no royal road; make good use of what you have and more will be given! Do your work well and you will be appreciated, and the future will rise up and bless you. G. W. S.

For the NEW YORK SCHOOL JOURNAL.

How we Learn, How we Teach, and How we Ought to Teach.

By B. A. BROOKS, A. M.

I. HOW WE LEARN.

Nature's way is the best way. If, then, we can find out the natural way of learning, it will teach us how to teach. All education begins at the fingers' ends—with the five senses. The human infant—that bundle of weakness with untold capacities, when it appears upon the scene of its earthly existence, knows absolutely nothing of its surroundings. But it immediately applies itself to the problem of finding out and adapting itself to the conditions of its earth-life. And this is the whole of education; a problem left incomplete by the oldest sages. Hence teaching is the "applied science of training a human soul to its terrestrial uses."

What does a child learn during the first two years of its life? First, phenomena—the nature, qualities and uses of the objects with which it comes in contact. Touch, taste, smell, sight, hearing, are all in active, constant use, applied to the outward objects and learning their nature and uses. Every act is an object lesson, every moment imparts knowledge. It is the school of nature. But this is not all. The child learns the use and capacities of its own body. Learns to balance itself on its feet and to walk, an act, for him, surpassing the skill of the gymnast. In fact, the nursery is a gymnasium of the best class, where every muscle is brought into constant and healthful activity; and in a natural manner. Then the child learns a language, learns two or more, if spoken in its presence, and

this without a teacher. It learns to use its organs of speech and a more difficult accomplishment than playing the piano. Who can tell what a child has learned in this time by the employment of its mental faculties; the new and wonderful ideas it has acquired; the suggestions, reflections and sensations it has experienced?

This is the school of nature, undoubtedly designed by the Creator in thus placing the infant man with such wonderful capacities in the midst of such a world requiring the exercise of those faculties and furnishing such an abundance of agreeable objects for his instruction and use. Here, then, we may learn nature's order and method of teaching. First, the perception, applied to natural objects and the state of society and life in which the child finds itself. Then, comparison, reflection, judgment, memory, imagination, and lastly, reasoning. Here the order is the thing, then the sign; the idea, then the word; the thought, then the sentence; proceeding always from the known to the unknown. The thing demands a name and suggests the idea. The necessity for a term or process calls forth its use and exercise. Observe finally, the fundamental fact that all this learning is accompanied with constant and real pleasure and delight. It is the highest and purest pleasure known to man. There is a royal road to knowledge. Nature, the creator of the human mind, has pointed it out. The child follows it, for the first few years of its life. Field and stream, wood and workshop, bird, beast and fish, the occupations of men, the companionship of his fellows, all instruct and delight. He knows no book, no teacher, no rod, no rule, but all is ever-increasing pleasurable acquisition of the most useful knowledge known to man.

Then the child is sent to school, and all is changed. Then come tears and sorrow; the laggard step to the prison-house; the glad hurrah of release from its doors. Nature's methods are all abandoned and reversed. The stupid book, with its unmeaning words, is put into his hands; the unsympathetic hireling teacher tries to compress the budding mind into the Procrustean bed of precedent and form. Instead of being a guide and companion, he is a police officer, guarding the doors of true instruction and pleasure. The process of instruction, *drawing out*, ceases, and the pouring-in process begins. "All joy abandon ye who enter here" is written over the door of the tyrant's cell. How we teach and how we ought to teach will be discussed in future numbers.

New York State.

The Institute at Utica was a great success. During an afternoon session, Governor Seymour addressed the teachers with his characteristic eloquence, as follows: Teachers, it gives me great pleasure to meet you, and I hold in high respect your work. We never cease to be teachers, and teachers should both learn and teach. He learns from what he reads and hears, or teaches by his words and example. To teach well a person must know his business, and as a suggestion to the teachers I would say, study human nature.

The aids to learning are now numerous and various and I would urge the teacher to avail himself of them all. Some learn by seeing, some by hearing, and the teacher should know how to reach every case and so teach as to instruct the heart. The longer I live the more I think of the heart, the less of the head. The teacher should study the character of his pupils. The work of learning is up-hill at best, and the teacher should ever be ready with his words of cheer and hope. As an impulse to study, the pupil should have placed before him an object and the hope of reaching it. How I remember with love the teacher who in one discouraged hour spoke to me a word of cheer, giving me new life and direction to my after days. There is no better way to win the heart and restore the virtue than by giving some motive, a hope that can be realized and the teacher should study himself. Often the pupil was accused of stupidity when it was ignorance or neglect on the part of the teacher. The teacher should be patient, not speaking, judging or acting hastily. The teacher should teach himself. Thus would he benefit and understand himself and better teach and lift up others.

Prof. DeGraff gave a very able lecture on the "Elements of Personal Power." We have stepped on the stage of action near the close of the nineteenth century. We are surrounded by advantages never possessed by any people. Our legacies are educational advantages, religious freedom and material wealth such as the world never possessed. But greater advantages imply greater responsibilities. The object of this is to discuss these advantages, and see where-

in are found the elements of personal power. It is evident to all men, that great results cannot be achieved at once, and we must be satisfied to advance in life as we walk, step by step. We must sow before we reap. To have it said of one, "he is a failure," or at the close of life, "he has been a failure," is a sad assertion. Temporary failures are the very best discipline for the true worker! they stimulate him to renewed efforts, working his best powers, and carrying him onward in self-culture, self-control and growth in knowledge and wisdom. No problem, in the whole range of human inquiry, and investigation, has elicited more discussions, than this—to find out man's powers. Moral power is the first element of personal power. The crown and glory of life, is character. It is the fountain of supremacy—the true throne, crown and scepter of a nation. Intellectual culture has no necessary relation to purity or excellence of character. A man may be accomplished in art, literature and science, and in honesty, virtue, truthfulness, be entitled to take rank with illiterate persons. Intellectual capacity is sometimes found associated with the meanest moral character. Wealth has no necessary connection with elevation of heart. Man's first duty in this world is to make himself better. The injunction of the scripture is "be ye perfect." The great purpose of life should be the development of true manhood. Spare me, oh, spare me from the man who has not personal power—who has not genuine enthusiasm. This age demands enthusiasm. The training of fifty years ago will not serve as a passport into society to-day. Wisdom is the key. Choice language is an element of power. Teachers and friends, press on, and reach the goal, and gain the prize, and wear the crown. Faint not, for to the steadfast soul come wealth and honor and renown.

Hon. Neil Gilmour, State Superintendent of Public Instruction, delivered an interesting address: In old Rome, there was a maxim, which reduced to language adapted to our times and circumstances, is: "So long as exists the common school system of the State of New York, so long will the Empire State maintain her power and position." On the teacher more than any other class, depends hereafter, the kind of men and the kind of women, that are to have control of this country. You are engaged in teaching, and I sometimes wonder if teachers have ever thought of the meaning of the word "teach." However, I know of some who think it to be the telling of a little arithmetic, and a little grammar, and at the end of the term receiving their wages. That is not teaching. To teach is to make the man out of the boy, and the woman out of the little girl. Physical and mental and moral education will make good citizens, and it is education that does it. This is your business, to prepare good citizens out of those committed to your care and keeping.

This subject is one that has ever been discussed both in this land and in all others. It will not be very long ere the business man, the merchant and the professional man will pass away. The physician will give up his practice, the clergyman will come down from his pulpit, ere long the lawyer's voice heard at this bar, will be stilled in death, and then you who are teachers will be asked the question which you must answer, "What kind of a generation have you prepared to take our places?" And hence the responsibility which rests upon you. It is time that you see to it that you discharge every duty that may be given to you to do, and that is incumbent upon you, well, I trust that always, no matter in what school your lot may be cast, great or small, that you will see to all the little duties, (because life is made up of small items always.) It is important to discharge the small duty as it is the greater. It is just as important that you, in your little school, teach well what you do teach, as it is that the best college professor in the land discharges his duties.

As we study the history of nations we find one thing, that no nation ever perished by getting into debt. Why, debt destroy a nation! Then one of the first powers of Europe would be no more. Then the proud sun of Great Britain would have gone down years ago. No, it is not debt, but it is immorality that destroys a nation, and it has been found that the great antidote is education of the right kind. Give us an educated people. A people educated as they ought to be, and the nation will be strong. One of the most important helps of the teacher is the Institute, which was established by the State, and the teachers must attend it if the trustees of their school consent or not.

Teachers, you have the laudable desire, as does everybody else in life, to meet with success. Now you ask the question, what shall I do to succeed? Just one thing.

Do your whole duty wherever your lot may be cast, and you will succeed. The man who works is the man who succeeds. And the time may come to you, when you will sit down and wish: "O, how I wish I could preach as brilliant a sermon as he does," or "How I wish I could make as eloquent a plea as he does." If you want to do it, go to work and do as well as you can. No man can tell how much midnight oil has been burned by this preacher or this lawyer, in order to prepare himself for his eloquent plea or sermon. You may accomplish the same result by earnest work.

Whatever else you may fail in, never fail in exhibiting to the whole world a bright moral character. No matter how brilliantly your life may shine, if it is not a moral one, you fail. Your whole life will be a miserable failure.

Now, as you go forth to your homes and school-houses, you take with you my warmest sympathy. And I wish each and every one of you, in the various avenues of life, abundant success. Precisely that kind of success which you covet and which you deserve.

Educational Notes.

Indiana's school fund is now \$8,007,095—the largest held in any State in the Union.

The Mississippi State University at Oxford contains nearly four hundred students, where there were less than two hundred last year.

An article in a German magazine on Japan, states that 1,800,000 pupils are receiving instruction on the European principle in 22,000 schools.

A new education law has been adopted by the Holland Chambers and sanctioned by the King, which excludes the Bible and religious teaching in primary schools.

The cause of education is lamentably neglected in Russia. Places as large as Blatust, with 16,400 inhabitants; Orsk, with 5,500; Belbek, with 2,600, are entirely without schools.

Suit has been brought to restrain the use of any language except English in the public schools of St. Louis. If successful, the suit will save the city an expense of \$250,000 annually.

There is a strong movement in some parts of Massachusetts in favor of changing from the old-time custom of having teachers examined by the town school committee, to the plan of examination by county boards.

Mr. George W. Childs, of Philadelphia, has given Professor Mears, of Hamilton College, \$100, to be applied to the increase of the library of metaphysical works which the Professor is collecting for the use of his department.

The public schools of St. Louis show an increased enrollment of 3,000 pupils over last year, in a total of 32,000. There are nine colored schools, which exhibit an increase of two hundred and ninety in a total of five hundred and seventy-six.

Of the 6,200 pupils who were enrolled public schools of Richmond, Virginia, last week, 2,421 were colored. It appears unfortunately, that about 1,000 children cannot be taught at all this session, chiefly for want of funds, school rooms, and other necessities.

The fall term of the Oberlin College opens with nearly seven hundred students in all departments. The Theological Seminary is so full that it has been necessary to finish off and furnish additional rooms in the fourth story of the Council Hall, which has not heretofore been occupied.

Mr. James T. Fields has commenced a course of lectures on English literature at Wellesley College. The course is to be continued throughout the year. The college has opened with its full number of three hundred and thirty students. Every room is occupied, and it is now necessary to board new-comers in the village. The five years' musical course is attracting attention. Wellesley College gets a silver medal from the Paris Exposition—the highest given to any institution of its class. The American Awards, in the Department of Education are very numerous.

The total gifts and endowments to colleges the past year is more than \$1,000,000. Harvard, the oldest of colleges, begins with \$334,000, or nearly one-third of the whole. Yale has received \$165,000; University of Virginia, \$80,000; Brown, \$50,000; Wesleyan, \$60,000; Dartmouth, \$57,000; Union, \$33,000, besides a legacy increasing the gifts of James Brown to \$110,000; the University of Pennsylvania, \$50,000; Cornell, \$25,000; Williams, \$19,000; the Marshall and Franklin College, \$115,000; Pennsylvania College, \$20,000, while other gifts to various collegiate institutions amount to \$137,000.

New York School Journal,

AND

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The SCHOOL JOURNAL can be obtained of any news-dealer in the United States. The American News Company of New York, general agents.

We want an agent in every town and village in the U. S. to whom we will pay a liberal commission.

The columns of the JOURNAL are open for the discussion of subjects pertaining to education. Let those who have practical skill communicate to others.

Should this paper by any means come into the hands of one not a subscriber, we ask you (1) to consider it a special invitation to subscribe; (2) to hand it to a teacher or other person who is interested in education, and urge him to take it also.

NEW YORK, OCTOBER 19, 1878.

This paper may fall into the hands of some one not a subscriber, as we endeavor to reach such by sending out extra copies. We beg him carefully to consider:

1. That no teacher can do justice to his pupils without a thoughtful study of the principles and practice of Education—the main themes of this paper; the truly illuminated minds asks for "more light"—the dying words of the great Goethe.
2. That the views and methods of the most successful educators in the country are found in its pages; and they are indispensable to one who aims to be a first class teacher.
3. That the expenditure of four cents a week will be a real economy—for you will be better prepared, more energetic and attractive as a teacher, and every pupil under your charge will feel it.

We call attention to the abstracts from Supt. Eliot's semi-annual Report on the Boston schools. There is food for thought in them.

Freedom for the Teachers.

A perfect 'craze' went over the land to mark out 'courses of study.' One teacher was to go from page 70 to page 90 in the Reader, from page 50 to page 70 in the Arithmetic, etc. This was called a graded system. It has produced results of a most melancholy kind; the scholars have suffered, that is plain enough; but the teachers have suffered still more. The plan leaves the teachers like horses in mills at tasks that have neither beginning nor ending. Besides they are charged not to go beyond these bounds. The thing shows well on paper; it shows well on examination too; only it doesn't show well in the scholars.

It gives them a teacher who has lost all ambition if she ever had any. It gives them teachers who are anxious to do no more than is laid down in the course and these are worse than the others. Two things must be done: get good teachers and then leave them somewhat to themselves. Mark out the general features of the Course and leave them to work out the salvation of the scholar according to their own native good sense.

The Art of Interesting.

A great deal of work is thrown away because it is done wrongly. Some always begin at the wrong end; some have no conception of the work except as imitations of some one else. To affect a human being, you must proceed according to certain laws. "First, wake up your pupils" was always on Mr. Page's lips; and no greater teacher has existed in this world. Yet thousands never interest their pupils; a few make special efforts to do it.

Entering a school-room not long since, a dense

group was found about the teacher. She was a little woman without any 'bangs' or 'frizzles' over a fine forehead. It was before nine o'clock too. She was somewhat embarrassed and explained she was showing the scholars a piece of *myrrh*. And is that all, thought we, that made those children gather there and wait so patiently. She explained that she felt it was a duty she owed to the young beings to tell them all she knew herself; for they would have no other opportunity to learn beside what was there and then afforded them. 'Besides,' she added, 'I learn a great deal myself by attempting to teach them.'

Here is a great truth. One who seeks to benefit another gets a certain benefit back again. Action and reaction are equal.

What a pupil learns out of his book and as a study often becomes a forgotten thing in spite of the 'drill' he gets. What he learns with pleasure is never forgotten. Let the teacher remember it is a duty he owes to the learner that he interest him in as many things as he possibly can—though it is not laid down in the 'course of study.'

Teaching Power.

A few months since, a gentleman having charge of a large school, called upon us for assistance in selecting an assistant for an important place. "I want," said he, "a lady who is a genuine teacher. I have been imposed upon a good many times, but I shall not be this time if I can help it." We drew out of him, by questioning, what he meant. "I have found," said he, "that a great many persons, when they know a thing, think they can teach it; they see no difference between themselves and any other person who knows the same thing. But only a few out of a hundred can teach; the rest go through the motions."

"How about government?"

"Well, as a rule, the good teacher can govern well; there are exceptions, I know, but that is a part of teaching; You see, the real teacher sees that he must exert power; he tries to do it as a man tries to magnetize another; he tries to pour out influence; order is needful for this, quiet is necessary."

"Does such a person improve steadily?"

"Their power of influence does not, but their skill in teaching does. I had such a teacher myself; he was odd enough, but how fast we learned; I really think that school-room was the happiest place I ever was in. We had great times in watching wheat and potatoes sprout and grow. In philosophy, he made a pump out of a glass tube."

"You think, then, such teachers teach rapidly?"

"Most certainly, they fairly ache to impart their ideas; and illustrate so as to wake up a boy's mind. And mark you, they don't simply set the memory agoing; they reach the logical faculties and make thinkers of their pupils. The worst calamity that can befall a child is that he has for a teacher one of these machine teachers—the 'system' men and women. In a few years they become dunces."

"How is that?"

"Why, curiosity is a God-given faculty. The child wants to know how and why. These people say, 'Sit still and learn the lesson.' By and by the inquiring faculty disappears and then he is done for; no teacher can manage him after that. He is like a drowned person—drowned with knowledge, only the water-drowned may be resuscitated."

"Then the taste and style of the pupil has something to do with his handling?"

"Most certainly. I never could employ one of your New York teachers in my school. They remind me of bullet moulds; every one must be made alike—defects and all. Now, children differ, and their beauty is in their difference. Teach them differently, talk to them differently; study their peculiarities. Oh! it is a long story about this subject of the difference between pupils."

"You want to be assured that your applicant possesses these qualities?"

"Yes, she must have all of them and more,"

"What more?"

"She must take pleasure in seeing her pupils gather around her; the others are soon 'sick of scholars', and won't tolerate them except in rows, on the benches or at their desks."

Such should be the teachers.

Thus was described a teacher that ought to be found in every school-room.

NEW YORK CITY.

The Board of Education met October 16. Present Commissioners Wood, Bell, Beardslee, Cohen, Donnelly, Dowd, Goulding, Halsted, Katzenburg, Kelly, Manierre, Place, Traud, Walker, West, Wetmore, Wheeler, and Wickham.

The Trustees of the Eighteenth ward ask that the salary of Miss Moran, V. P. D., be restored to \$1,080; also to appoint Miss A. Eager as teacher of music in P. D. G. S. No. 40.

The City Superintendent reported relative to the Evening Schools:

Number of pupils registered,	10,401
An excess over last year,	291
Number present at opening,	8,520
" of teachers,	283
" of principals,	31

Also that great care has been to exclude the unruly element; out of 241 classes, only two are reported as bad, and eleven fair.

In respect to Day Schools, there were, October 1:

Registered,	124,271
Average daily attendance,	112,083
Excess over last year (on average),	6,728
Number refused admission, total,	3,623
" refused admission in Nineteenth ward,	1,199
" of classes that have an excess of pupils,	53

The Superintendent calls attention to the excess of pupils in several classes; several primary classes (limited to 75) run as high as 90, some to 98; in the Grammar schools (limited to 60) to 80, some 100.

The Committee on Course of Study reported changes in text-books, and Mr. Walker desired it to be taken up, but it was laid over, all changes to be printed. The same committee reported in favor of using Leigh's Pronouncing Orthography, and asked that it shall be used in fifth and sixth primary grades. Laid over.

The Committee on Colored Schools reported it was impudent to close them and transfer pupils to other schools. Adopted.

The Normal College Committee report there is a balance of \$248 for purchasing medals arising from interest on funds for that purpose, and due for medals, \$197.

The Committee on Teachers reported to appoint John S. Maguire as Principal of M. D., G. S. 8.—Also to pay Miss H. Fiske, P. P. S. 39, maximum salary.

The Committee on Trustees recommended appointing for Twentieth ward, J. E. M. Lordly, M. D., and for Twenty-first ward, S. H. Hurd. Laid over.

A lively discussion on increasing salary of janitors of training school to \$1,350, was had. Several thought it too high. Tabled.

Mr. Walker asked to be relieved of duty on Normal College Committee. Tabled.

NOTES.

The American Lead Pencil Company ask that their pencils be put on the list of supplies. These pencils are undoubtedly equal to any made, if not superior.

A request was made to close the schools of the Twelfth ward a half day to attend some entertainment for the Southern sufferers, but unanimously denied.

The National Temperance Society ask that its Temperance Lesson Book be put on the list of supplies.

The attendance for October of 124,271 pupils, is the greatest ever reported.

There were but few teachers present. The topic of interest is the proposed change in the text-books. Mr. Walker is understood to favor the oral teaching of grammar; and hence changes may be expected in the list of text-books.

There was a debate over the salary of janitor of Training School, in which some hints were thrown out, looking to a reduction of salaries of janitors.

LETTERS.

To the Editor of the New York School Journal:

You have lately touched some vital topics in the JOURNAL. The present system of selecting the instructors of the children is as bad as it can be. It has brought into the field an army of incapables. No business could be carried on in that way and succeed; neither can teaching. It is true this method has been long employed, but that is no recommendation whatever; it has failed, for the condition of things is changing and has changed. The plan of having three or five men of no skill in education select the teachers is a relic of barbarism. It is only perpetuated because no educational man has the courage to devise another. I have been much interested in the fact that you recognize the situation; for all other papers simply fall in with the notion that the present system must, like Tennyson's brook, "go on forever." In this city, it should be as follows: first, the Principals should be appointed by the Board of Education on the nomination of the superintendents and the presidents of the Normal College; there should be no vice principal; the assistant teachers should be appointed by the Principal; the money should be distributed among the schools, 1, in proportion to the number of pupils; 2, a certain sum should be distributed in proportion to the character of the examination; say \$2 to each pupil in each grade that passed a good examination; the Principals to be paid in proportion to the pupils; the large-school Principals to have \$5,000, the next \$4,000, the next \$3,500, the next \$3,000 and the next \$2,500; the female principalships to be abolished in name, not changed in salary; principals to be men in all cases, and to have, where needed, a clerk, and in certain cases to oversee two or more buildings. The superintendents to be as exacting, or more so than at present.

A good many may think these things impossible. Let me give you the word of a commissioner: "The system is all wrong, it may be termed 'keeping school under difficulties.' It proceeds on a wrong assumption—that a business can be successfully carried on by one man when others pick out his assistants; it is done in the Custom House, but every one knows that is a political affair. The teachers are not appointed on account of their fitness to teach, but for other reasons. The whole thing wants a thorough overhauling. The skillful teachers ought to be well paid. There is no public feeling against that; but the public do see that a great many persons are teaching in our schools who ought to be doing something else, and that is what makes them complain." There are good things in the system, but they are wrongly put together. A Principal says: "The best teaching talent in the country should be in the N. Y. city schools; it comes here, but the doors are tightly barred; the trustees refer the applicant to the Board of Education, and there the matter rests; meanwhile some green girl gets a leverage on these trustees and they appoint her."

I hope, Mr. Editor, that the Teachers' Association will take this matter in hand and propose a way out. If they will not do something, they may as well disband.

R. M. M.

To the Editor of the New York School Journal:

I consider the JOURNAL a feast, and keep it with three or four other educational papers, always on my table, and upon every possible occasion call the attention of teachers to the same, but cannot often get more than a careless glance. I suppose they call me an enthusiast and foolish, to care about teaching out of school hours; yet I am often asked "Where do you pick up all these things?" Sometimes I lose patience with my ten assistant teachers; for none either take or read any educational paper, and I do not think there are more than three or four in the city who take even a monthly. But there is another side to this view. Why should the teachers trouble themselves in this direction? They have secured their positions, through certain influences which will keep them there so long as there is no flagrant insubordination, and they can prepare their classes to answer 70 or 75 per cent. of the questions asked from text books in examination. They teach as they were taught; have had no special training for teaching, and have no idea of a higher and nobler aim than to fill their places satisfactorily to a "Board" whose "visiting committee" rarely enter the building. If those teachers who read and work up to a higher standard do better work, what of it? No one ever comes in to see how their work is done; they receive no higher salaries for doing better work. Then why waste their time and money? Better spend the latter for worsteds and the former in making mottoes and lambrequins in anticipation of a possible release from the school-room.

W.

BOOK DEPARTMENT.

ELECTIC SHORT-HAND, by J. Geo. Cross, (S. C. Griggs & Co.). This system is a deviation from, rather than a modification of phonography. As an ellipse is the easiest and swiftest outline to execute with the pen, Mr. Cross has constructed his alphabet from the arcs and axes of the inclined ellipse, giving it twenty-six letters representing the same powers as the English alphabet; this leaves the student only the new forms of the letters to be learned for the corresponding style, which is the first step in the study, and is designed to save much time and trouble in ordinary writing, as it requires only one-sixth of the movement in forming the characters. In determining these, consideration has been given to natural combinations, which will give a uniform forward movement to the hand in writing. The oblique and vertical lines that form them are reversible, and heavy lines are, with one exception, discarded; the vowels are represented by full lines made capable of contraction, which may be added to consonant lines. 5,700 signs are written out in short-hand characters, and reproduced for the instruction of the learner in some seventy-five pages made by the photo-lithograph process.

LOGARITHMS. By Webster Wells, Instructor of Mathematics in the Massachusetts Institute of Technology. Boston, Robert S. Davis & Co.; New York, Baker, Pratt & Company.

But for the untimely taking off of Archimedes, logarithms, it is probable, might have been made known to the ancients; for this scholar left behind him a work in which was a plan for estimating the sands of the earth by similar processes to calculations by logarithms, at the present day. The invention, however, was reserved to John Napier, who published to the world his famous treatise in 1614. By later writers his tables have been amended, extended, and improved. Since the time of Professor Briggs, however, other writers have occupied themselves in revising the tables already calculated, rather than in extending them.

In offering this work to the public, Professor Wells has made a valuable contribution to the list of text-books in mathematics. Evidently he is a writer of vigor, force and originality. This book is designed for high schools, academies and colleges, and, no doubt, will also prove acceptable to the engineer and surveyor. It will fill a gap found in most works on Algebra and Trigonometry. There are numerous practical examples to make plain the theory, and to insure familiarity with all its applications. The tables show the care and correctness of the scholar.

This book is published in a convenient form, with good, clear type, and a substantial binding. It presents the best methods and most recent improvements in teaching this subject at the present day. No doubt it will be welcomed by all teachers and students of mathematics, as presenting this subject in the clearest and most satisfactory manner. The volume of school literature is large and constantly increasing; but any one who adds to the list a really good book like this, is deserving of the thanks of the educational public.

THE TWO CHAINS; or, The Twenty-nine Articles of Temperance, by Rev. W. F. Craft, National Temperance Society, New York. Price, 25 cents.

The above is the title of a 66 page pamphlet, written by a Chicago minister. There are the chains, or two chapters, in the book, each divided into shorter ones, called links; those belonging to the first chain represents the unhappy results of strong drink; of the second, the different methods to be used for protection and redemption from the drink bondage. It is certainly a unique idea, and the facts are well presented. We hope it will help on the cause of Temperance.

THE NINETEENTH ANNUAL ANNOUNCEMENT OF THE NEW YORK HOMOEOPATHIC MEDICAL COLLEGE, with a list matriculates and graduates for 1878, is now ready.

INTRODUCTION TO THE TEACHING OF ANCIENT LANGUAGES, by L. Sauveur, L. L. D. Henry Holt & Co., New York.

We have before recommended Mr. Sauveur's method of teaching French, and now he has applied it to the Ancient Languages. Many valuable hints to teachers are given. The concluding remarks are quoted from Jacotot: "The best teacher is not the one who has the greatest intellect, but the one who always thinks of his scholars, who loves them, is interested in their progress, makes them speak, awakens their dormant energies, keeps up their enthusiasm; in a word, he who watches over their education as untiringly as if they were his well-beloved children. No

genius is needed for that, but a certain character "an especial bent, a boundless self-devotion."

THE PARALLEL AND MERIDIAN SYSTEM OF MAP DRAWING, by W. V. Marshall. A. S. Barnes & Co., New York. Price, 20 cents.

The author gives directions. How to Draw, Materials Used, Coloring, How to Draw a Map of a School Room and Grounds, with talks on teaching geography.

AMERICAN COLLEGE DIRECTORY AND UNIVERSAL CATALOGUE FOR 1878. C. H. Evans & Co., 411 North Third street, St. Louis, Missouri. Price, 10 cents.

This pamphlet contains a good deal of valuable information; it gives name, location, length of course, management, size of faculty, library, price of board, name and titles of the presiding officers, for all Educational Institutes in the United States. There are 3,650 colleges, seminaries, academies, etc., mentioned. From this brief review of its contents, will readily be seen its service.

WHITE'S PRIMARY SCHOOL DRAWING CARDS, prepared by H. P. Smith, Teacher of Drawing in the Public Schools of New York City. Ivison, Blakeman, Taylor & Co., New York.

This series consists of twelve cards in each set, and contains one hundred and forty-one examples carefully graded for primary classes. A slate has been prepared especially adapted for use with these cards. Also a manual containing all the exercises on the cards; with directions for dictating each figure, definitions and practical hints upon the teaching of this subject.

FROBISHER'S POPULAR RECITALS, Serious and Humorous, with a prefix on elocution by Professor J. E. Frobisher. Samuel French & Son, 122 Nassau street, New York.

The selections are above the average—some are just the thing for school entertainments. Directions as to gesture, reading, acting, and reciting are given from the work of a celebrated English elocutionist.

THE BREWERY AT TAYLORVILLE, by Mary Dwinnell Chellis. National Temperance Society, New York. Price, \$1.50.

Although we have not perused this story, slight glance over it, and the knowledge of the author's pleasing style of combining an interesting tale, and a moral together, is enough to recommend it.

COALS OF FIRE; a Story of a Pauper's Revenge, by Alice Sweet. National Temperance Society, New York. Price, \$1.00.

This is another book for Sunday School Libraries. The author says in her preface: "The intentions in writing this little book, were chiefly to point out some of the evils of intemperance, and to offer suggestions which, by the grace of God, may be of use in remedying these evils."

THE WAVERLY DICTIONARY, an alphabetical arrangement of all the characters in Sir Walter Scott's novels, with a descriptive analysis of each character and illustrative selections from the text, by May Rogers. S. C. Griggs & Co., Chicago. Price, \$2.00.

The title so completely describes the ground it covers, that only a word or two further is needed in its praise. To all who love the "Waverlies," this will prove a truly delightful acquisition, for many things a little obscure to the reader, are here brought to the light.

Life and Health Physical, Mental and Moral, Vol. I., No. 1. Thomas F. Hicks, A. M., M. D., Editor, Wernersville, Pennsylvania. Price, 30 cents a year (six numbers).

The fact that the editor is a teacher, commends his paper to our notice. It promises to be a racy little journal, as it starts out with the determination to have their articles "boiled down," and merely the essence given; strength in a small compass. "Health is worth having," and when at so slight a cost, the means of preserving it are within your reach, why lose it?

GEOGRAPHY OF NEW YORK CITY AND VICINITY, a Supplement to the Eclectic Series of Geographies, by J. S. Newbury. Van Antwerp, Bragg & Co., Cincinnati and New York.

This is something that every teacher in and around the Metropolis should have. It is very thorough and descriptive, and much can be learned from it.

NEW MUSIC.

John Church & Co., Cincinnati, Ohio, have favored us with the following music, selected from their latest publications. This firm is too well-known to need any indorsement as to the quality of their music.

Vocal—"Dreamy Eyes Have Gone to Sleep," by E. M. Hall; "The Toast," (bass song), by D. C. Addison; "Tell Me Truly," "Home to My Heart," "Welcome Home Lit-

the Bark," by G. T. Bulling.

Instrumental—"Echoes From the Rio Grande," waltzes, by Hannah Atkins; "Quinna Waltz," by E. H. Swem; "Elegy," by E. B. Phelps.

W. W. Whitney, Toledo, Ohio, publish a series of "favorite songs by popular authors," in uniform style. "The Fisherman's Daughter," by Samuel Lover, is one of them, and if this is a sample of what the rest are, their name, "favorite," is not misapplied. It runs from E to E and a minor vein running through it, adds to the already tender melody.

For the NEW YORK SCHOOL JOURNAL.

To Teachers.

LETTER NO. V.

There are, in this country, about five hundred separate articles or substances, which may be eaten, and which furnish more or less nutriment when properly prepared and properly eaten. Of these, not more than thirty are so frequently or habitually eaten as to constitute common, or what are sometimes known as staple, articles of food. Of these staples, the flesh of our various domestic animals, such as the ox, sheep, and swine, and of our various species of domestic fowls and common birds, is in more or less habitual use. We also use the grains and various garden and field vegetables, and fruits, liberally.

Taking into account what substances do not tend to build up and keep in good health the brain and the nerve structures of human body, none of our edibles equal or surpass the grains, and of these grains there are none that can out-rank, and I think none that equals, wheat. This grain contains in itself a more complete and perfect combination of elementary substances than any other article of food at present known to man. Food, therefore, when prepared from wheat and eaten by human beings, furnishes to them a larger proportion of the constituents necessary to their complete bodily sustenance than any other kind of food. It is very much richer in nutrition than any flesh meats. Especially, when it is ground into flour and made up into bread, puddings, cakes, and other forms of food, without the flour being bolted, does it furnish to the nervous system the elements which the nerve structure, needs to make good its repairs against its waste. In the Institution over which I have had the honor and the great pleasure to preside, as Physician-in-Chief, for thirty years, I have had the largest opportunity to learn by observation and experiment, the relative virtue of foods in the way of restoring to its natural vigor and efficiency the human nervous system, and, after a very long and patient and widely experimenting practice, I have come to the conclusion, that food made out of the unbolted flour of wheat into such foods as persons may prefer, cooked in simple form, and eaten in connection with good cow's milk, in moderate quantity, and in connection also, with good fruit, constitutes the best nutritive material for innervating human nerves and human brains, of any of the foods I know. To teachers, bread made of unbolted wheat meal, eaten with good milk, and with vegetables or fruits, as one may please, is much more brain sustaining, and nerve invigorating, than to eat what is known as mixed food, made up of superfine wheat flour—yeast raised and baked; of beef-steak, mutton, fish, or fowl, with tea and coffee, potatoes, pickles, mustard, salt, pepper—in fine, made up of a large variety of stimulating or exciting substances, which induce to nervous expenditure rather than to nervous up-building.

If I were to have at my command and disposal the dietary of teachers, by processes that are careful and judicious, I should diminish very much their use of foods, which, while they nutrify in small quantity only, do cause great waste of tissue, by the excitement to which they subject the nutritive nerves, and by the irritation to which they subject the brain. One thing is certain, all teachers are mortal, and, therefore, subject to the laws which regulate existence on earth just as much as other persons are; and they can no more live and work hard, and waste up their strength and nerve tissue, and so diminish their bulk without repairing it, unless they break down, than any other persons in any other calling of life, can. The profession of a teacher is a taxing one, as I have already said in previous letters. Great nervous expenditure is necessary to success. Such expenditure must be repaired. It can, in the main, only be made good through nutrition, and if one eats food with a view to make the wastage good, it must be of such quality as will supply the waste caused by daily labor.

Now, if the food be ever so relishable to the eater, but does not contain the elements in it to repair worn out nerve or tissue of any kind, then who eats it does so at a

loss. It may fill up his stomach, or excite his heart to rapid action, and so stimulate the brain, but all this is not up-building, but added waste; and so, as the days go by, the teacher becomes more and more impaired, less and less competent, until, finally, health flees, and the physician is called. Likelier than not, he does not understand that the debility in which he finds his patient is to be attributed to a lack of proper food. If he does not so find it, he will be unwise enough to consult his materia medica to see if he can find some tonic, as he calls it, which will help his patient. Now, when the nerves are worn out and the brain is debilitated for the want of proper food, all the doctors that can be sent for, far and near, to come and see such person, cannot find in another substance on earth the necessary restorative element that is contained in the needed food. Medicines never can make good the want of proper aliments.

I suggest, therefore, to all weary, or wearied, or greatly debilitated and worn down teachers, that they give the matter of foods their attention. The school teacher should never eat white bread, but always unbolted wheat meal bread; should never drink coffee nor tea, but should use cow's milk instead; should not make meat of any kind a staple article of diet, but should eat it only when occasion for increased energy, under exigent circumstances, demands it. If persons would eat flesh only occasionally, they would not have to drink stimulating drinks. For, where meat is used at in frequent intervals, its effect on the nerve centers is only inferior in the stimulation produced, to that of wine containing about twelve per cent. of alcohol.

The entire question of foods, their alimentary properties, their relation to the nutrition and the sustenance, when in use, of the various organ and structures of the human body, needs to be seriously considered by teachers if they would have good health.

JAMES C. JACKSON.

Boston.

(REPORT OF SUPERINTENDENT ELIOT).

We have perused the semi-annual Report of Supt. Eliot with much satisfaction. In many respects he utters words that few would dare to use in these days. There has come a fashion into education, and he who does not wear it is considered a foggy, if not a fool. Hear Mr. Eliot:

"We need a generation of clearer thoughts and nobler motives, to take the places that are now but poorly filled, and lift our occupations, our institutions, and our lives to a higher range. It is in the public schools that the great body of the nation is to receive its intellectual training, and, I venture to add, its moral training. The child who behaves ill, who has no manners, perhaps no principles, certainly no apparent ideals, may have the best literary or scientific instruction ever given, but in vain; he comes to it in indifference and leaves it in ignorance. The help that character gives to youth is continued to manhood and womanhood. Every opportunity, every interest, every purpose of life may be said to centre here. Moral training is at the heart of all training. To it, as to the object for which no effort or sacrifice was too great, our schools were devoted by their founders, and we who come after can find no better."

(This would seem to show the need of *real* teachers, would it not?)

"Of all educational institutions, the public schools reach farthest beyond themselves. They have helped to start many a family on a course never attainable or even conceivable without them, and have kept many a one from swerving from the way once taken towards purity or truth. Every child they send home at the close of the day better than he was at the beginning, is a power to which the household yields, perhaps unconsciously, perhaps unwillingly, but at last.

One such principle is respect for child nature. Its weakness as well as its strength, its tendency to distraction and weariness, its slowness of growth, and its immaturity even when all the growth possible has been reached—this should be always in view. Treat children as children. Do not say a thing should be done as if the children set to do it were years older than they are, or, having set them upon it, demand a great part of it from them when little portions are all they can really give us. We are apt to think they need more work than they do; that they had better pursue this study or that, because we like it, or estimate its advantages very highly, and yet, though our estimate may not be exaggerated, or our liking unreasonable, it may be unwise to prescribe the study to our children."

(We have often and often said the schools were beyond the children.)

"Another principle to maintain is, respect for our teachers' nature. Treat them as teachers. They are often treated as pupils, and pupils requiring exceptional control. Why not trust their aspirations? If we would have them equal to their office, we must believe that they are so, and make them believe it; the last thing to do is to make them disbelieve it by putting them into close restraint. They need what others need—a sense of freedom. They must of course be under authority, observing general regulations and striving after general results, but every law that lifts itself like a wall on the right hand and the left, every requisition that is dragged after one like a stone, is an injury not only to the teacher but to the taught, and not to them alone but to the system which inflicts the injury, and the community which suffers from it. I fear we often inflict it with the best intentions. We want to help our teachers, and so we frame a rule or programme, as if it would set their feet in the right direction and bring them out at the point to be reached in the distance. But when we show them the way they are to take, and make sure that they take it, then let them go forward by their own landmarks, or, if these fail them, by the stars above; if both fail them, then it must be because they cannot keep on, and our restrictions will never help them. The freer their movements, consistently with order and efficiency, the better for them, the better for the schools to which they will then be able to give their own life, instead of one borrowed or imposed.

(We have said, get good teachers and let them alone.)

"Cramming never was, and never will be educating. If educating is drawing out, cramming is driving in; if the one means bringing up or nurturing, the other means pressing down or stunting—always the opposite. Cramming asks, How much? How soon? Educating, how well? How long? Cramming cares nothing for teacher or scholar, but only for the school or the system. Educating makes everything of the teacher and scholar, and leaves the school, if it can be spoken of as a separate object, and the system very much to themselves, sure that they will be right if the teacher and the scholar are. Education, real education, aims straight at the will. It is not so much what young people are learning, as how they are learning, or how much they want to learn, which proves their training. The best points of training are motives. Boys and girls come to school with hardly a single motive that can be called rational, and yet this is what they must have before they can make any progress, or even take any position. Such a motive is the first lesson, and the best that their school can give them, and other lessons will follow fast. The only way I know of beginning is to make a child's work an enjoyment rather than a burden, by helping him to see to what it leads, and by making it, whether he knows what we are doing or not, a means to an end beyond it, the exertion of some faculty he likes to exert, the satisfaction of some curiosity he likes to satisfy. Zeal for study is the great object to attain. With more zeal there comes more ability. Excite a heartier desire to learn, and the power to learn will soon be stronger. Sir William Hamilton said, 'The primary principle of education is the determination of the pupil to self activity.'

(But education has been forgotten in bringing out a "course of study.")

"Spelling-books, for instance, block the way they profess to open. Children should learn to spell partly from their reading-books, partly from the other books they use, and partly from oral and written exercises. When we study a foreign language, we do not get a spelling book to help us. We read, and write, and either correct our mistakes or leave them to our teacher, and with no other direct instruction we learn to spell the words we use. The work is to a large extent unconsciously done, and there is no better way of doing such work as spelling, at least after its first stages are passed."

(True, every word.)

"The days of copy setting were better than those of copy engraving, for this reason, if for no other, that the teacher wrote for the pupils as well as the pupils for him. If he went further, and encouraged them to write out passages in prose or verse, perhaps helping them a little in their choice, then those days were a great deal better, and we had better revive their practices. Text-books in arithmetic are open to the same sort of criticism respecting their mechanical character. Hardly a pupil, not to say a teacher, who uses them but is injured by the way in which they interpose themselves, their definitions and complications, between the student and the study, until it is transformed and he with it."

The Russian Calendar.

A good deal of confusion is sometimes caused by the Russians and those who write of Russia employing in accounts of passing events now the Old Style, now the New; and through an apparent error of this kind, one of the Russian generals in Turkestan found himself, not long ago, charged with having ordered two massacres, when, as his friends maintained, he had only commanded one. The slaughter of which he was accused, seemed to have been committed on the 1st, and again on the 13th of the month; but it turned out to be the same act of bloodshed differently dated.

It might seem that the proposed change might easily be introduced in writing and printing, for the reason that the millions of peasantry whom it might seem calculated to perplex and irritate, are, as a rule, unable to read and write. The great epochs of seed-time and harvest are fixed by saints' days. So are the beginnings of periods likely to be marked by frost or by thaw.

So are the days on which the Russian peasant must eat no meat, and on which he must even abstain from eggs and milk. He is required to fast throughout Lent, during half the month of June, from early in November until Christmas, and on all Wednesdays and Fridays throughout the year.

At the beginning of the last century, Peter the Great caused much dissatisfaction in the Church, and through the Church among the peasantry, by decreeing that January, and not, as heretofore, September, should be counted as the first month in the year. This heretical and truly Satanic alteration conflicted, it was said, in the most flagrant manner with the story of the temptation of Eve and the fall of man. In September apples are ripe, and the trees laden with apples may be seen. But in January the apple trees are bare; and it could not, therefore, be true that in that month the incidents took place which are related as having occurred at the very beginning of the world's history.

In Abyssinia an umbrella is a sign of royalty, and no one else is allowed to use one. It is made of crimson silk, and carried by a servant. Even in Constantinople no umbrella can be opened in the Sultan's palace. They wrap their heads in shawls when it rains.

Do you know how a person who makes bonnets and such articles of dress came to be called by the name of Milliner? It was originally "Milaner," meaning a resident of Milan in Italy, and it arose from the fact that at one time the fashions all came from Italy.

MANY of the little creatures that we are accustomed to think stupid are really very knowing. There is a spider, named "Pholeus," that when alarmed hangs down from its web by its legs—which are very long—and swings its body around so fast that it can hardly be seen. How do you suppose that little atom, half an inch long, knows that one can't see well anything moving rapidly?

THERE is a snake-eating snake in the London Zoological Garden. He is over seven feet in length, and his circumference is about equal to the thickness of a man's wrist. His virus is as deadly as that of the cobra, and he is a regular athlete among snakes. His head is very lizard-like and harmless-looking, and has an intelligent-looking eye. Like the cobra, he has a hood which he can expand when angry, and his body is ornamented with very pretty stripes. On his arrival at the gardens he was treated to a live English snake, which he instantly seized and swallowed head foremost.

BEFORE the days of numbering the houses in cities, people had to resort to various devices to tell where they lived. Some painted the houses an odd color, others decorated the doors with something new and striking; still others colored the door-posts, or the balconies. Signs for shops were more absurd still. There was a grocery with the sign of a grasshopper, and an inn with the sign of a red lion, etc.

THE foot and pound are found in every country, and have evidently been derived from the Romans. The ancient pound weight found in the Tower, appears to have been of Roman origin, being identical with the Greek Asiatic mina, while the hundred weight corresponded to the talent or weight of a cubic foot of water. Subsequently the Troy pound was substituted, and, for commercial transactions, the pound avoirdupois, from the French pound of sixteen ounces. It is evident, however, that our weights and measures in the dark ages were in an unsettled state, and subject to arbitrary alterations at the will of the monarch.

TECHNICAL EDUCATION.—The trustees of Girard College are considering the project of introducing industrial education, in some form, into that institution. The Philadelphia *Bulletin* approves it, saying that "Because what is understood as technical education tends powerfully to break up the evils of trades-unionism, by giving to the country a class of young skilled mechanics who will force their way by their own merits into all the fields of mechanic art, it becomes a matter of very high importance to note what other countries may do in the way of combining a thorough practical knowledge of the mechanic arts with a sound literary education. The Paris Exposition presents a most interesting exhibit of the work of technical education as it is now carried on in Europe. Schools of this class are in successful operation in nearly every considerable city on the continent; and they are represented at Paris by handsome exhibits of the products of the pupils in almost all departments of manufacture. The old countries are all realizing the importance of technical education as a political as well as a commercial question. The success of competition in trade abroad, and the improvement of the social condition at home, are both recognized as largely dependent upon the encouraging of a class of intelligent, educated, skilled mechanics, such as can only be produced by well organized systems of technical education."

THE Japanese have trouble to dispose of their silk of late years; its price has fallen about fifty per cent. This owing to the fact that the manufacture of silk in Japan greatly increased and exceeded the demand, also its use has been restricted owing to the introduction of other fabrics. An increase of production has notably taken place in China, for whereas some six or eight years ago not more than 26,000 bales of silk were annually shipped from Shanghai, it is estimated that during the past season no less than 70,000 bales left that port.

PETROLEUM.—The production of petroleum as an article of trade dates from the 28th of August, 1859, when Colonel Drake, in a well 69½ feet deep, "struck oil," and coined a phrase that will last as long as the English language. From that beginning it has increased to an annual production of 14,500,000 barrels of crude oil. The first export was in 1861, of 27,000 barrels, valued at \$1,000,000, and the export of petroleum in the year 1877 was, in round numbers, \$62,000,000. The annual product of petroleum to-day—crude and refined—is greater in value than the entire production of iron, and is more than double that of the anthracite coal of the State of Pennsylvania, and exceeds the gold and silver product of the whole country. As an article of export it is fourth, and contests closely for the third rank. Our leading exports are relatively as follows: Cotton annually from \$175,000,000 to \$227,000,000; flour from \$69,000,000 to \$130,000,000; pork and its products (bacon, ham and lard) from \$57,000,000 to \$82,000,000; and petroleum from \$48,000,000 to \$62,000,000. From the best sources of information there are at this time 10,000 oil wells.

THE Dardanelles or the Hellespont, as it was anciently called, is a narrow strait about forty miles long, and from one to four miles in width, constituting a link in the geographical chain which lies in the following order, running to the northeast, viz: The Mediterranean Sea, the Dardanelles, the Sea of Marmora, the Bosphorus, the Black Sea—Constantinople being situated on the Bosphorus. By the Treaty of the Dardanelles, between Great Britain and Turkey, in 1809, the latter power insisted on her right to regard the strait as her own waters, and stipulated that they should be closed to ships of war. By the treaty of Adrianople, 1828, the Russians obtained the opening of the Dardanelles to their merchant vessels, but did not claim the right for war ships. In the treaty of 1833, she extorted from Turkey the stipulation that the straits should be closed to all foreign war vessels. The treaty of 1841, participated in by England, Russia, France, Prussia and Austria, established the present regulation that no ships of war of foreign nations should enter the Dardanelles without the express permission of Turkey.

THE island of Zanzibar formerly belonged to Oman in Arabia, to which it became subject in 1784. In 1856 the Seyid Said of Oman (sometimes improperly called Sultan of Oman or Iman of Muscat) died, after a reign of half a century, leaving fifteen sons. When internal dissensions began, and the succession was disputed. Thoweny, the eldest son, was elected ruler of Oman, and Majid, his brother, of Zanzibar. After a long dispute, the rival claims of the brothers were submitted to the arbitration of Lord Canning, then Governor-General of India, who confined each in his sovereignty, and decreed that the Seyid of Zanzibar should pay an annual subsidy to Oman of 40,000 crowns.

PAPYRUS is the Greek name for paper, and it was years ago, way back in the Christian era, that it was first introduced into European countries by Samarcand from China. Historians place its introduction in the year 651. Its discovery rapidly spread over Europe, and at Mecca in 707 it was manufactured from a pulp prepared from vegetable fiber and cellular tissue. In the eighth and ninth centuries the bulls of the Pope of Rome were written on paper made from cotton. Germany and France following in the year 1314. The first paper made in Egypt was from the pulp of the species of the reed called papyrus. It is wonderful what progress has been made in the adapting of paper to the wants of our growing nation in the last twenty-five years.

Golden Thoughts.

(One to be written on the blackboard each morning to be learned and copied by the pupils.)

It is much easier to seem fitted for posts we do not fill than for those we do.

God judges our actions by our motives, men judge our motives by our actions.

THE wealth of a soul is measured by how much it can feel; its poverty by how little.

In matters of conscience first thoughts are best. In matters of prudence last thoughts are best.

WE have more power than will, and it is often by way of excuse to ourselves that we fancy things are impossible.

A GREAT many persons think it is their business to preach, but they had much better make it their business to hear for a while longer.

Let amusements fill up the chinks of your existence, but not the great spaces thereof.—*Theodore Parker.*

It is not till the storm comes that we find out the real timber of a vessel. The things which try people show what is in them.

JOHN WESLEY says: Get all you can without hurting your soul, body or neighbor; save all you can and give all you can; being glad to give and ready to distribute.

WIT is humor and love.—*Thackeray.*

It is easy to look down on others; to look down on ourselves is the difficulty.—*Lord Peterborough.*

THE love of glory, and fear of shame, the design of making a fortune, the desire of making life easy and agreeable, and the humor of pulling down other people are often the causes of that valor so celebrated among men.

HE needs no other rosary whose thread of life is strung with beads of love and thought.—*Persian Proverb.*

SHAME does not consist in having nothing to eat, but in not having wisdom enough to exempt you from fear and sorrow.—*Epictetus.*

NEVER despair; but if you do, work on in despair.—*Burke.*

OUR dead are never dead to us until we have forgotten them.—*George Eliot.*

The Scholar's Companion.

The great thing for the teacher to do, is to interest his pupils in their studies. If he can do this, he will succeed; if he cannot, he will fail.

THE SCHOLAR'S COMPANION has proved to be the most remarkable paper ever sent out among the children. Its readers press on to educate themselves. It has fresh dialogues and beautiful declamations, stories of school-life. It is designed to be an Ideal School; the subscribers are the pupils, the editor is the teacher. He gives out all sorts of questions, which children of eight years and upwards can find out; announces who have done the best; presents a large number of prizes each month and sends them by mail. It does everything to interest its readers in self-improvement and self-education. It encourages the reading of good books, handsome writing and drawing, and keeping accounts. It inspires every boy and girl with a desire to be brighter, better and more wide awake, and to love the school.

It has fresh dialogues and beautiful declamations; stories of school-life, school incidents, boyhood of eminent men, names of the best scholars,—the best compositions and verses, letters from the brightest scholars; a lesson in Shorthand, etc. Only fifty cents a year. It is as necessary as a dictionary. It has the warmest recommendations from the most eminent people as well as from thousands of its delighted readers.

Supt. Kiddle, New York—"I entirely approve of your plan." Pres. Hunter, Normal Coll ge, N. Y.—"I have read your new journal with great pleasure." Supt. Dickinson, Jersey City—"I cordially recommend it."

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"Lies! Big Lies!"

Not so fast my friend; for if you would see the strong, healthy, blooming men, women and children that have been raised from beds of sickness, suffering and almost death, by the use of Hop Bitters, you would say, "Truth, glorious truth." See "Truths," in another column.

From the Scholar's Companion.
The Morning Ride.

BY MISS A. ELMORE.

"Now my bonnie Bess; away!
In the light of early day—
Leave your tracks, with eager feet—
On the prairie; flower sweet."
"Scattering dewdrops, with her wings
From the grass, the wild bird springs
Filled with vague, increasing fear,
Of the bounding tread, so near."
Her brown head—a mother quail;
(As my skirts in prairie gale,
Flaunt and flutter near her nest),
Lifts, and thinks, "They come in quest."
Tripping out her fairy feet,
Mark the dew on grass grown street.
Swift, she hies no'er looking back,
At the straight, and dainty track.
"Easy, Bess; with step so light
That you may not cause her flight."
Fairy of the hazlewood,
Cute, wee type of motherhood.
"What a merry chase," think we,
"What a race I've had," says she.
"Now, they're fairly off the track,
Guess I'll dodge, and hurry back."
From the path, with quick intent,
Through the brush, her way is bent,
To the spot where nestlings small,
Answer to her brooding call.
"Quiet, Bess, here you may drink
From the streamlet's crystal brink,
Homeward then, o'er yet the sun,
Jewel hunting quite has done."
"In our canter o'er the hill,
And the slope toward the mill,
Mosaic gems, in dew, have we
Swept from grass and web-hung tree."
"All my being gladness thrilled,
All my veins with vigor filled.
Thank you, Bessie, for this treat,
Air and odor wondrous sweet.
Of that charming morning ride,
Of my pony, eager eyed,
Track of quail, like ribbon strung
I've a picture; framed, and hung.
Fairy hung in mem'ry's hall,
Where I gaze in sweet enthrall,
All the joy there held for me,
Stranger eyes, may fail to see.
Homesick, from the dust, and din,
Of the city I am in.
Turn I now, with thoughts of rest,
To the Prairies of the west."

Best Scholars.

ROCK-VALE SCHOOL, PA.

Hettie Houser,	Harry Brown,
Annie Hoover,	Lizzie Kline,
Maurice Bachman,	Frank Houser
Emma L. Fraelich,	George Burkholder,
Amanda Fraelich,	Frank Brown,
Tillie Kline,	Willie Killian,
Mary Killian,	Harry Killian,
Lizzie Lippold,	John Leaman,
Annie Leaman,	Geo. H. Leaman,
Mary Leaman,	Euos Lefever,
Barbara Leama,	John Lefever,
Lizzie A. Meek,	Harry Ulmer,
Emma K. Lefever,	Elmer Ulmer,
Ella F. Weaver,	Lizzie L. Meek,
Emma Meek,	Florence Tweed,
Lizzie Ulmer,	Mary Lefever,

Lizzie Meek.

GRAMMAR SCHOOL No. 16.

Charles Thode,	Charles Richter,
James Martin,	Charles Fagan,
Henry Hutchinson,	William Dick,
Charles Snyder,	Alex. Allison,
Frank Mellen,	Louis Schwartz,
John S. Noble,	Rich'd Lindsley,
Isadore Carbonell,	Nathan Whitley,
Caspar Marr,	William Casey,
W. S. Gordon,	Jas. E. McDermott,
John Coyne,	F. Burnham,
D. Winter,	Sam. Galbraith,
William Collins,	Herman Brader.

What Worms Can Do.

In the year 1874 the silk worms of Europe produced 9,050,000 lbs. of silk; and those of Asia 11,500,000 lbs. That will do for worms won't it? Did you ever hear of worms or birds turning to be tramps? Do they say they cannot get work and beg? Not much. Let those who groan about their troubles, think of the silk worms and the bees to be up and at work, and I promise you they will get a living. M. M.

A Russian Boy.

More than one of the great families of Russia have sprung from a very humble source, owing its subsequent greatness to some fortunate accident. The first of the Ostermanns, who have since produced a Commander-in-Chief and a Prime Minister, was a young German emigrant from Pomerania, who attracted the notice of Peter the Great by his prompt translation of a dispatch which the Czar wished to send to one of his foreign adjutants. The history of the Menschikoffs is still more romantic. Their founder, Alexander Menschikoff, was a pastry cook's boy in St. Petersburg during the same reign, and on the occasion of a State dinner at the palace was sent thither with a basket of tarts made expressly for the Czar himself. Halting to rest on the way, he was accosted by two well-dressed men, one of whom engaged him in conversation while the other inspected the contents of the basket, after which they suddenly disappeared. As the boy stooped to pick up his load, a passing dog seized one of the tarts, but had hardly swallow it when he dropped dead, with a howl of pain. The quick-witted lad instantly divined a plot to poison the Czar by his means, and hastening to the palace, told the whole story. He was at once rewarded with a post in the imperial household, and eventually rose to the rank of Chancellor of the Empire, which he held till the accession of Peter II. The latter, however, disgraced and banished him to Siberia, where he died; but the Empress Anna reinstated his family, which has ever since held a prominent place at the Russian court.

Nathaniel Bowditch.

Some seventy years ago there lived in Salem, Massachusetts, a poor boy who had determined to get an education. He was confined in a shop through the day, and had but few advantages and little time for carrying out his design. He was not discouraged, however, but persevered like a hero, and every month witnessed his progress toward the object of his ambition. That boy was afterwards known throughout the civilized world as Dr. Bowditch, one of the most learned and famed scientific men our country has ever produced. But all that Bowditch knew, he learned; and all that he learned, he acquired by diligent and persevering application. You can form some idea of his indomitable perseverance, from a little incident that is related of him. While he was a boy, a valuable private library, which had been captured at sea, arrived in Salem. These books were a rare prize for those days, and young Bowditch borrowed a number of them from the person who had charge of them. The volumes were retained longer than was necessary for a simple perusal, and it was afterwards ascertained that the young student was so anxious to possess them, that he actually copied twenty ponderous folio and quarto volumes of scientific works, and thus made them his own! These books, which at that time he dared not, from economy, think of purchasing, were of great service to him in after years; and his children have carefully preserved them, as precious memorials of the perseverance of their father.

How to be Happy.

John Oakley gives an interesting account of beautiful incident he witnessed in Philadelphia. It was half-past nine o'clock at night, in Market street; he espied a little boy about five years old looking wistfully into a baker's window. A stranger, a middle aged gentleman, approached and touched his hand and whispered in his ear. A gleam of delight passed over the child's face, and he bounded into the store and soon emerged with his hands full of cakes. The stranger had meanwhile walked away chuckling with delight. Mr. Oakley walked on interested in this king in disguise. He saw him halt before a woman who was sitting on a cold, marble step—her cheek resting against a cold, marble column—asleep. Before her was a tray of beautiful bouquets. The stranger paused, and selected one and placed a large sum, too large to pay for it, in the sleeper's hand; it awoke her and she murmured: "I

have no change for this," "None is required," said the stranger. I crossed over and thanked him for his deeds of love. He laughed cheerily and said that the easiest way to be happy was to render others so.

Cost of Royalty.

The British Parliament voted Prince Arthur, the third son of Queen Victoria, an annuity of \$50,000 a year for life, on the occasion of his marriage with a German princess. The Queen herself gets about \$2,000,000, besides the revenue of the Duchesse of Lancaster, which yields her \$200,000 more. The Prince of Wales has, including his revenue from Cornwall (of which he is Duke), \$550,000 a year; and the Princess of Wales, \$50,000.

The Duke of Edinburgh receives \$125,000; the Duke of Connaught has, \$125,000. Prince Leopold and the Princess of Prussia (the Queen's oldest daughter) have \$40,000 each; and the other daughters—the Princesses Alice, Helen and Louise—have \$30,000 a year each. Thus Great Britain pays the Queen's family no less than \$3,220,000 with which to keep up their state and splendor. Besides this sum, the Queen's half sister, her aunt, the Duchess of Cambridge, her cousins, Princess York and the Duke of Cambridge, get \$100,000 more between them.

The Editor's Letter.

How many, many bright eyes are looking at these words! I wish I could see the eyes. Are they blue, brown or black? But I cannot stop; business is before us. I spoke about your sending in subscriptions in the last COMPANION. Now have you done so? "Yes, yes!" say a good many. "Why, don't you remember that letter I sent you, with two beside my own renewal," says one; and another, "I sent you three," and so on. Right glad am I that you work for the COMPANION, for it must have hosts of friends to make it prosper. But how about your renewal? We can send the paper only to those who pay up promptly. Read over my letter in the September number. I want every one who was a reader last year to be a reader this year; for the paper will be much better and more useful. Now, then, attend: The DICTIONARY is offered at 25 cents to each one who sends 50 cents to renew his subscription; or if you send one dollar to pay for your renewal, and for a new subscription we will send you the dictionary as a premium; but add ten cents for postage, or send one dollar to renew your subscription and you will get two dictionaries. You ought to have that dictionary to help you to look up definitions. It is worth seventy-five cents, so you will get a valuable book very cheap. The silver watch for 35 subscribers is still offered, and it is a beautiful article. I hope many will be able to get it.

Now notice, the publishers of the COMPANION also publish two excellent papers for teachers, the *School Journal* at \$2.00 per year, and the *Teacher's Institute* at \$1.00 per year. If you get 9 subscribers for the *School Journal* or 3 for the *Institute* you will have the watch. You see one for the *Journal* counts as much as 4 for the COMPANION; one for the *Institute* counts as much as two for the COMPANION. So that, 2 for the *S. J.*, 10 for the *T. I.* and 15 for *S. C.* will get the watch, and almost every boy or girl can get those. The teachers will be glad to take those papers. Try it and see. Or if you wish to make your teacher a handsome present you can do so in the easiest way by obtaining subscribers for these papers. You will get the papers and he will get the present at no cost but that of the papers.

Notice the new rule about answers to prize work. It is this: put on the question, then the answer; then your name; then leave a space of one line; for I must cut them apart and put all that answer the same question together so as to compare them; just like a class. What a time I have in hearing the lessons! Why it takes a whole week! Don't use thick paper, and be sure you put enough postage-stamps on. I desire every subscriber to write to me. I want to know what you and your parents and teachers have to say about the

COMPANION. A good teacher learns much from his scholars. Who wants more stories? who likes stories like "The General"? who likes the "Stories from Homer"? "Uncle Philip's Talks"? "Lessons Recited"? "The Monthly Lessons"? "Letter Box"? "The Writing Club"? "The Dialogues"? (now these are always used in some schools; do you all use them?) "The Fairy Primer"? Tell me frankly what you think and what you wish; it will be a great help to me. And tell me what you think of the "Jolly Workers." Be sure and sing it in your school. I think it is a right-good song for scholars. I shall, if you like this, give you another.—*Scholar's Companion.*



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